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October 8, 2004

Arthur L. Williams, Director
Louisville Metro Air Pollution
Control District
850 Barrett Avenue
Louisville, Kentucky 40204

Re: Draft Regulations, STAR Program

Dear Director:

These preliminary comments are tendered on behalf of the membership and Board of the Kentucky Resources Council, Inc., a non-profit environmental advocacy organization committed to protection of the quality of Kentucky's environment and providing legal and technical assistance without cost to Kentucky individuals, community organizations and local governments on air, waste, water, and resource extraction issues. KRC has numerous members residing in the Louisville Metro region, who have been adversely affected by the release from stationary sources of air toxics into the Louisville airshed.

KRC submits these preliminary comments concerning the proposed regulations, and will tender additional comments as the regulatory package progresses through the formal rulemaking process.

INTRODUCTION

While there are a number of technical and policy matters that KRC believes need to be addressed in refining the regulatory package, in concept and in goal KRC believes that the proposed STAR program is sound as a matter of science and public health policy. The Board of the Metro Louisville Air Pollution Control District is urged to stay the course in the development of a meaningful set of air toxics regulations despite the predictable hue and cry from those accustomed to utilizing the public's air for waste disposal, that the program is too much, too fast.

KRC has reviewed the preliminary comments submitted by the Greater Louisville Sierra Club, and developed by D. Phyllis Fox, P.E., DEE, and incorporates those comments herein by reference as if fully set forth below.

Additionally, KRC offers several specific comments, but initially, submits some general observations concerning the regulatory endpoints of the program.

THE USE OF A BENCHMARK AMBIENT CONCENTRATION OF 1 X 10-6 FOR CANCER RISK AND 1.0 FOR NONCANCER HEALTH EFFECTS REPRESENTS AN APPROPRIATE TARGET AND SHOULD NOT BE WEAKENED

In developing a program for control and reduction of emissions of air toxics, KRC believes that it is inappropriate to establish standards that assume as appropriate the imposition of additional non-consenting risk of death or injury to human populations o subpopulations, or of degradation of environmental quality, through a less-than adequate regulatory endpoint. While some of the preliminary comments have questioned whether the standards for cancer and non-cancer health effects are too conservative, the state of human toxicological knowledge demands that we exhibit humility and conservatism in standard-setting.

Our society has developed an elaborate criminal justice system, which provides extensive procedural safeguards to assure that, prior to the deprivation of life, liberty or property of an individual who is accused of a crime, the state demonstrate beyond any reasonable doubt that the person is responsible for the crime and the state action against that person is thus justified. We do so in order to protect the innocent, and as a reflection of the profound respect in our society, as codified in our constitution, for personal liberty.

So too, we demand of our health professionals that before they intervene to alter a person's health status, that they provide full disclosure of risks and that the person, so informed, provides lawful and sufficient consent for *beneficial and therapeutic* intervention.

No less must be demanded of sources in the arena of air toxics emissions. Establishing a regulatory standard that sanctions additional risk of morbidity or mortality, where the exposure of the public is intentional, where from the public's standpoint the exposure is uninformed, unconsenting, and occurs to subpopulations (including children and *in* utero exposure) that are legally incapable of consent, and where the exposure to individual and multiple toxicants are *not* for therapeutic purposes but occur as a byproduct of disposal of wastes via dispersal into the public's air, is unacceptable from a public policy and environmental health perspective.

The necessity for conservative assumptions concerning exposure and risk characterization is clear, given the significant uncertainties concerning human response to multiple chemical exposure. There are over 75,000 chemicals in the marketplace. Less than 3% of those have been tested for carcinogenicity. Fewer than 5% of the 75,000 have been sufficiently tested to compile a complete *human* health hazard profile, partial information is available for 15-20%, and virtually no information is available on the

remainder. Even less toxicological data is available regarding hazards to other organisms, and the human health data is in many cases weak in identifying the sub-lethal, chronic health consequences from repeated low-dose exposure from single or multiple sources. Most of the research work that has been done focuses on single chemical exposure and mush less is known of the additive and synergistic effects of multiple chemical exposures.

Additionally, conservatism is required in order to protect those among us who are the most vulnerable. Risks are not evenly distributed throughout the population, and the assumptions must consider the most sensitive subpopulations such as children, *in utero* exposure, and those with already-compromised respiratory and circulatory systems. Either the default parameters must be chosen to be protective of the most sensitive subpopulations, or an applicant must develop a formal analysis of the variability of risk across the sensitive subpopulations.

While it has been suggested by one commenter that the proposed regulations are overly conservative, in reality the tremendous dearth of information relating to chronic, low-dose exposure to many of the compounds known or suspected to be capable of inducing adverse physiological response in target species, makes the supposed over-conservatism of the numbers an illusion. Once has merely to review the dramatic reduction in recommended exposure values for such compounds as benzene over the past decade, and to review more generally the state of environmental toxicology, to realize that there is a significant uncertainty in the identification of "safe" levels of exposure for many thousands of the chemicals that may be released into the environment, and that the supposed conservatism may significantly under-protect the public and environment from the chronic risks of long-term, low-dose exposure.

In determining the “acceptable” level of risk, KRC believes that the formulation of “acceptability” of risks posited by the National Commission on Product Safety is instructive:

> Risks of bodily harm to users are not unreasonable when consumers understand that risk exists, can appraise their probability and severity, know how to cope with them, and voluntarily accept them to get benefits that could not be obtained in less risky ways. When there is a risk of this character, consumers have reasonable opportunity to protect themselves; and public authorities should hesitate to substitute their value judgments about the desirability of the risk for those of the consumers who choose to incur it.
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> But preventable risk is not reasonable (a) when consumers do not know that it exists; (b) when, though aware of it, consumers are unable to estimate its frequency and severity, or (c) when consumers do not know how to cope with it, and hence are likely to incur harm unnecessarily; or (d) when risk is unnecessary in . . . that it could be reduced or eliminated at a cost in money or in the performance of the product that consumers would willingly incur if they

knew the facts and were given the choice.

Thus framed, the regulatory endpoint must remain the protection of public health and environmental quality by eliminating the use of the "commons" for disposal of airborne wastes and by more fully internalizing the cost of avoidance, reduction, management and disposal of waste byproducts of manufacturing.

SPECIFIC COMMENTS

1.02

KRC questions the use of "public access" as a qualifier for defining "ambient air." While air within a structure that is used for commercial or manufacturing is typically subject to OSHA standards, occupational exposure of workers in the workplace *outside* of the workplace to emissions from the facility vents and stacks appears to fall in a void if the ambient standards are not measured until the "property line."

The use of the "property line" as the point at which compliance is determined with respect to ambient standards, has two unintended consequences that make it underprotective of public health – first, it would appear to allow acquisition of land in order to create a buffer rather than management of the emissions; and second, it would allow exposure to workers outside of the workplace without accountability, even where those workers might be the maximally exposed individuals due to the exposure *in* the workplace as well as potential exposure as neighborhood residents and individual in transit from home to work.

The calculation of ambient concentrations must be such that the maximally exposed individuals outside of the source structure are protected, including workers.

1.07

KRC strongly supports additional accountability of sources for emissions during, and avoidance of, upsets and malfunctions. Emissions of products of combustion and of incomplete combustion from thermal treatment units can be orders of magnitude higher than during normal operating conditions, and accountability in the area of startups, shutdowns, malfunctions and releases has been lacking.

1.20

The development of a malfunction prevention program should be a requirement for all major sources of both criteria and toxic air pollutants. Limiting the responsibility for development of such a program to those sources that have *already* reported a malfunction *after* the implementation of Regulation 1.07, provides facilities with a "free bite" that does not encourage better management of plant equipment and processes. As reflected in Section 1.1.3, the release of air toxics is a matter that implicates public health and welfare. Yet the burden should not be placed on the agency to justify the imposition of a malfunction prevention program – instead it should be an integral component of proper facility management.

CONCLUSION

KRC believes that the proposed regulatory package is a sound basis on which to build a meaningful air toxics regulatory program for stationary sources of air toxics. reduction in toxics is a multi-sector initiative, and KRC looks forward to working with the District Board towards regulatory and other initiatives to reduce air toxics from mobile sources. It is past time for the sources emitting air toxics, and their trade association representatives, to embrace meaningful reductions in air toxics in order to achieve healthful air quality in the Metro Louisville region. The sources have had years in which to develop meaningful voluntary measures, and yet the monitoring continued to reflect significant unabated health risks. The health of this region's economy is grounded in the health of its most vulnerable residents – its children. They deserve better than recalcitrance and entrenchment in the face of documented health risks.

Cordially,

Tom FitzGerald
Director